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The impact of non-lyrical Iranian traditional music on reading comprehension performance of Iranian EFL learners: The case of gender, attitude, and familiarity

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Abstract

Many studies have explored the effect of music on the reading comprehension. However, the possible roles of gender, attitude as well as familiarity with the background music have been disregarded. Thus, this study aimed at scrutinizing the impact of familiar Non-lyrical music and the attitude toward it on reading comprehension performance by gender. Sixty volunteered male and female EFL learners completed two fifty-itemed TOFEL reading comprehension tests in no-music (pre-test) as well as background music conditions (post-test) respectively, followed by an attitude questionnaire. The results of Mixed-ANOVA as well as Correlation tests revealed the negative influences of music on reading comprehension, while no significant difference was observed between two genders. Besides, it indicated learners' negative attitudes toward familiar music, and its slight relation with reading comprehension. The intended study could be helpful to methodology, making teachers aware of the essentiality of room without distraction for comprehension process.

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Keywords: Familiar music; Reading comprehension performance; Gender; Attitude

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1. Introduction

Nowadays, music has inseparably gone with the territory of humans' lives. Acknowledging so, North, Hargreaves & O'Neill (2000) revealed this profound role through demonstrating the fact that about 2,465 of adolescents aged from 13 to 14 commonly dedicate their times to listening music approximately 2.45 hours per day while preferring this to other activities such as reading, doing homework, even talking with their parents. Many, including students get benefit from listening to music while studying to tune their brains up, change their moods, enhance concentration, or reduce fatigue resulted from daily routines. Realizing such facts have stimulated teachers to employ music in classrooms to serve as a tool enhances desired moods, behaviors, as well as relaxation which is regarded by Lozanov (1978) as "concert pseudo-passiveness" brings favorable concentration on.

As salient impeding factors diminishing attentiveness, psychological barriers including stress and negative attitude destructively interfere with cognitive processes. Calling such factors as affective filters, Krashen (1985) stated that negative attitudes and anxiety perform as mental barriers, blocking normal comprehension and internalization of inputs by learners. Consistent with this suggestion, Lozanov and Miller's Suggestopedia method (1978) signified that learning and intake process would not be facilitated unless these critical factors were controlled. Being in quest of a reasonable solution, they evinced music with its psychological as well as behavioral features as a qualified reducer of these barriers (Richard & Rogers, 2001; Drowns, 2002; Merrel, 2004; Stansell, 2005). Standing up for this idea, Allen & Blascovich (1994) asserted that music might act as a sub-conscious healer establishes a fair condition for cognitive functions through diminishing cardiovascular reactivity, post stress, and blood pressure. Contemplating these ideas intuitively and observing such difficulties thoroughly on the part of foreign language learners convinced teachers and researchers to examine the possible influences of music on teaching, learners' exam takings, and studying processes. To this end, accompanying music with such activities could be regarded as an associative task known as multitasking ability (Darrow, Jonson & Rink, 2006) which according to Fisher (1999) is conceptually distinguishing feature of females. He declared that the males' more linearity in accomplishing simultaneous activities compared to females could be traced in the prehistoric division between both genders.

Leaning on these assertions, many studies dealt with the effect of music on comprehension process, simply exposed participants to different types of music (Kiger, 1989; Tucker & Bushman, 1991; Drowns, 2002; Liapis, Giddens & Uhlenbrok, 2008; Cooper, Cotton & Goss, 2008). This is while most of them heavily revolved round the influences of Mozart classical sonata on emotion, intelligence, speaking, and reading performances (Retallack, 1973; Rauscher, 1988; Robinson & Jens, 1998; Deem, 2004; Worth, 2006; Liapis et al, 2008). What is disregarded to some extent is observing the criterion of familiarity which according to Etaush & Michaels 's (1975), Beentjes, Koolsta & Vanetal's (1996) as well as Patton & Routh's assumptions (1998) would be crucial in alleviating the danger of miscomprehension caused by the distraction of unfamiliar music. Therefore, the selection of culturally familiar music seems to be an utmost importance for natural flows of comprehension processes. Besides, as Senemoglu's declared (2004:419), considering the substantial role of attitude as an emotional as well as cognitive state is critical, owing to the fact that it undeniably influences the way a task is performed. Since creating positive attitudes in students toward test taking advantages, removing stress, and consequently better performance in the exam context have especially been desired by educational systems; studying the possible effect of music is still wide open to new suggestions. Therefore, the present study is intended to investigate whether familiar non-lyrical music affects reading comprehension performances of EFL participants by gender, and whether there exists any relationship between participants' familiarity and attitude toward test taking in the presence of music with their reading comprehension performances.

2. Review of literature

The studies of the possible influences of music on the mind and behavior were initiated by Alfred A. Tomtis's proclaim regarding the effect of Mozart sonata on advancing brain functions (Liapis, Gidden, & Ohelnbrock, 2008). Validating this claim, Raucher, shaw & Kelly (1993) provided three conditions of silence, relaxation tape, as well as Mozart sonata to administer an IQ test through placing students in these situations. The result revealed that students' scores enhanced significantly after listening to Mozart. Thereafter, number of investigations surveyed the positive as

well as negative psychological, behavioral and cognitive effects of music on human minds, emotions and behaviors (Harmon et al., 2008).

Some affirmed the constructive psychological effect of music on emotions and behaviors (Thompson, 2011; Schellenberg, 2004). Kiger's Arousal hypothesis (1989) notified the positive influences of music provided that it intensifies the arousal up to a desirable level, and contains low degree of information loads. Savan (1999) assessed the impact of Mozart sonata on 10 to 12 years old boys' emotional and behavioral problems. She discovered that the presence of music pacified students and improved their accordance with others.

Some others examined the positive influences of music on cognitive performances (Rauscher & Zupan, 2000; Bowman, 2007; Gur, 2009). Hall (1952) asserted that the presence of background music developed 58% of students' scores in Nelson Silent Reading Tests, and resulted in better performances of children on comprehension tasks. Additionally, Darrow, Standley, and Swedberg (2007) inspected the effect of music on slow students' reading comprehension skill, arranging them in two groups of experimental and control groups receiving music instructions and no treatment respectively, followed by a reading comprehension. The test result indicated that the experimental group got significantly better scores compared to control group.

On the contrary, some claimed the destructive effect of music on cognitive processes. Norman & Bobrow (1975) and Furnham & Allas (1999) demonstrated its interfering impact on reading comprehension, using the term capacity interferences. Pertez (2003) stated that a cognitive overlapping between linguistic code's comprehension and music processing would result in the breaking down of decoding processes. To put flesh on the debate, mind has a limited capacity for information processing. Since simultaneous processing of music and reading comprehension demand attentional resources, it is feasible that capacity interference occurs. Daoussis and Mckelvie (1986) investigated the effect of Rock & Roll music on the introvert and extravert reading comprehension which the result showed that introverts' scores decreased in the music condition compare to no-music one. Likewise, Fogelson (1973) examined the influence of pop music on reading comprehension tests of eighth-grader classified as bright and non- bright students. Having divided them in two groups (experimental with music and control with no music), he found that control group outperformed the experimental one. Besides, Tucker and Bushman (1991) examined the impact of Rock & Roll on verbal performance, arithmetic and reading comprehension. The result indicated that mathematical and verbal performances reduced, while reading comprehension remained steadfast.

To add fuel to the debate, the detrimental or favourable influences of different types of music on cognitive processes might depend heavily on crucial factors like relative complexity. Furham & Bradley's Complexity theory (1997) proposed that music complexity creates a barrier reducing participants' scores comparing to less complex one. In another word, lyrical music is a heavy burden on brain to process. Endorsing such suggestions, Liapis et al. (2008) arranged students in two groups; lyrical and non-lyrical one, to read the same article. Although the result was not significantly in favour of non-lyrical condition, participants in this group outperformed the lyrical one.

Leaning on the assumptions concerning the influence of music on the elements of attitude including mood and motivation, Swan's (1992) regarding the outperformance of female over males in multitasking, that of Etaush and Miller's (1975) concerning the role of music familiarity, and perceiving the existing gaps concerning the roles of such critical issues, this study aimed at scrutinizing the effect of familiar music and the attitude toward it on reading comprehension performance by gender.

3. Methodology

3.1. Participants

Sixty upper-intermediate males and females ranged in age from 20 to 23 were selected from 103 volunteered Iranian EFL learners of Yazd University, employing quota Sampling. All have passed at least 2 reading comprehension courses in their majors.

3.2. Instruments

To serve the research purpose, one laptop computer with speakers was used to play music in a classroom. Besides, twelve tracks of popular non-lyrical music frequently played on TV and radio were selected from the DVD "to the city of memories". All of them were slow and about thirty five minutes long. The assessment tool consisted of two reading comprehension tests, each composed of 10 short passages, having fifty multiple choice items taken from the book Developing Reading Comprehension for TOEFL(2008) . The themes of the passages were cautiously picked up to account for prior general background knowledge of both genders. Moreover, a ten researcher-developed attitude questionnaire was employed to explore the attitudes toward taking tests in a music condition. The Cronbach's alpha value of the questionnaire was 0.374.

3.3. Procedures

The participants were divided into two groups of females and males and made aware of processes. They were reassured that tests' results and information sheets would keep safe by the researchers. The tracks were hand-picked on the basis of participants' common agreement on familiarity two weeks before administering the pre-test. The learners took two fifty-itemed TOFEL reading comprehension tests in no-music (pre-test) as well as background music conditions (post-test) respectively, followed by an attitude questionnaire to survey the extent to which their standpoints regarding test taking in the latter condition were correlated with their reading comprehension performances. The collected papers were corrected based on the answer sheets of TOEFL guidelines. The obtained data were run to SPSS statistics including Mixed-ANOVA as well as Correlation tests.

4. Results

The current research was carried out to investigate the impact of familiar Non-lyrical music and the attitude toward it on reading comprehension performance by gender. A mixed between-within subjects ANOVA was conducted to find out if the differences observed were statistically significant. The preliminary analyses showed no violation of homogeneity of variance (p= 0.78) and equality of covariance matrix (p= 0.69), (p= 0.79). There was a substantial main effect of time [Wilks 'Lambda= 0.83, F (1, 58) = 11.66, p= 0.01]. The partial eta squared was 0.176, indicating small effect size. There was no significant difference between two genders in their performances, (p= 0.62). Also, no significant interaction effect between group and time [Wilks 'Lambda=0.04, F (1, 58) = 0.23, p = 0.62] was observed.

Further, the relationship between participants' attitudes toward taking test in music condition and their reading comprehension scores was investigated by different gender. The preliminary analyses revealed no violation of normality, linearity and homoscedasticity assumptions. The result remarked the existence of a small positive correlation between the two variables for the males $r = 0.22.$, $n = 30$, $p = 0.237$ as well as females $r = 0.25.$, $n = 30$, $p = 0.16$ while indicating to some extent that the less they had positive attitude toward music, the less their reading comprehension scores were. Overall, both genders had high negative attitude toward taking test in the presence of music. That is while they commonly listen to music when studying in their daily lives.

5. Discussion

The present study sought to investigate the impact of non-lyrical Iranian traditional music on reading comprehension performance of EFL learners by their genders and attitudes. The research found the deteriorative impact of such music on participants' performances. Therefore, the result was neither in line with aforementioned studies suggested that music enhances cognitive abilities (Gur, 2009; Bowman, 2007; Rauscher and Zupan, 2000; Merrel(2004), Richard& Rogers, 2001; Drown, 2002; Stansell, 2005 & Lozenvo,1978) nor with Etaugh and Michaels (1975) claim assumed that familiar music is less distracting for the cognitive performances.

Though the employed music was non-lyrical, calm and without any complexity, it had destructive effect on participants' performances. Thereby, Furnham & Bradley's (1997) assumptions relating to the positive influence of calm music on task performance and comprehension through providing better conditions is not approved. Thus, the

result was in common ground with Peretz (2003), proposition that music interfere reading comprehension process due to the fact that in almost all participants declared its impeding effects to their concentrations. Concerning the gender differences, no evidence was found; therefore, Swan's (1992) as well as Fisher (1999) maintenance relating to the superiority of the female in multitasking could not be defended though females slightly outscored males in non-lyrical traditional music condition.

6. Conclusion

As it was mentioned earlier, the present study aimed at demystifying the impact of Iranian non-lyrical traditional music and the attitude toward it on reading comprehension performance of EFL learners by gender. The obtained results revealed the negative influence of non-traditional music on reading comprehension, and the participants negative attitudes toward test taking in such condition.

Therefore, the findings have some pedagogical implication for teachers concerning the importance of distraction-free condition for taking exam since it might result in alleviating attention from the comprehension process. Moreover, it could be implied that though music might provide a change in moods, enhance concentration, or reduce fatigue resulted from daily routines in the case of positive attitude toward it, it might change into an impeding factor when the task demands high concentration, and the attitude turn into a negative one.

It is worth demonstrating that this research might suffer from the possibility that participants might not do their best in tests, and noises produced by other classes might have distracting effects on their performances. Since there was no valid and reliable attitude test about music and the attitude toward it, the questionnaire designed by researcher; however, the number of the items was limited into 10 items. The small size of items and numbers of students might be the underlying reason behind the slight correlation found in the study. Addressing such gaps might provide promising areas of further research.

References

Allen, K., & Blascovich, J. (1994). Effects of music on cardiovascular reactivity among surgeons. Journal of the American Medical Association, 272, 882–884.

Beentijes, J. W. J., Koolstra, C. M., & van der Voort, T. H. A. (1996). Combining background media with doing homework: Incidence of background media use and perceived effects. Communication Education, 45, 59–72.

Bowman, B., (2007). Does listening to Mozart affect listening ability? International Journal of Listening, 21, 124-139.

Daoussis, L. & McKelvie, S.J. (1986). Musical preferences and effects of music on a reading comprehension test for extraverts and introverts. *Perceptual and Motor Skills, 62: 283-289.*

Darrow, A.A., Johnson, C., Agnew,S., Rink,E. (2006). The effect of preferred music as a distraction on music majors' and non music majors' selective attention. Bulletin of the Council for Research in Music Education, 17, 21-31.

Darrow, Standley & Swedberg (2007). The use of music to enhance reading skills of second grade students and students with reading disabilities. Journal of Music Therapy, 44(1),23-37.

Douglas, S., and Willatts, P., (1994). The relationship between musical ability and literacy skills, Journal of Research in reading, 17(2), 99-107.

Drowns, M. R. (2002). The effect of classical background music on fourth-grade silent reading comprehension.Unpublished M.A. Thesis, Truman State University.

Etaugh,C., and Michaels, D. (1975). Effects of reading comprehension of preferred music and frequency of studying to music. Perceptual and Motor Skills, 41, 533-554.

Fisher, Helen (1999). The First Sex – the Natural Talents of Women and How They are Changing the World. Random House. ISBN 0-679-44909-4.

Fogelson, S. (1973). Music as a distracter on reading-test performance of eighth grad students. Perceptual andMotor Skills, 36, 1265-1266.

Furnham, A., &Allass, K. (1999) The influence of musical distraction of varying complexity on the cognitive performance of extroverts and introverts. European Journal of Personality, 13(1), 27-38.

Furnham, A., & Bradley, A. (1997). Music while you work: The differential distraction of background music on the cognitive test performance of introverts and extraverts. Applied Cognitive Psychology, 11, 445–455.

Gur, C. ((2009). Is there any positive effect of classical music on cognitive content of six year- old children in Turkey. European Journal of Scientific Research, 36(2), 251- 259.

Harmon, L., Pelosi, G., Pickwick, T., Troester, K., (2008). The effects of different types of music on cognitive abilities. Journal of Undergraduate Psychological Research, 3, 41-46.

Kiger, D.M. (1989) Effects of music information load on a reading comprehension task, Perceptual and Motor Skills, 69, 531–534.

Krashen, S. (1985), The Input Hypothesis: Issues and Implications, Longman
Liapis, Z., Giddens, Z. & Uhlenbrock, M. (2008). Effects of lyrical music on reading comprehension. Retrieved August 20, 2010 from, http://vault.hanover.edu/~altermattw/methods/assets/posterpics/Fall2008/Giddens_Liapis_and_Uhlenbrock.pdf
Lozanov, G. (1978). Suggestologv and Outlines on Suggestopedy. New York:Gordon and Breach.
Merrell A, 2004. The benefit of incorporating music in the classroom. Available from: http://audreymerrell.net/INTASC/INTASC 6/the%20benefits%20of%20incorporating%20music.pdf [Accessed 18 January 2011].
Norman, D. A., &Bobrow, D. G. (1975). On data-limited and resource-limited processes Cognitive Psychology, 7, 44–64.
North, A.C., Hargreaves, D.J. and O'Neill, S.A. (2000). The importance of music to adolescents. British Journal of Educational Psychology, 70, 255-272 Strunk, W., Jr., & White, E. B. (1979). *The elements of style* (3rd ed.). New York: MacMillan.
Peretz, I. (2003). Brain specialization for music: New evidence from congenital amusia. In I. Peretz, & R. J. Zatorre (Eds.), *The cognitive neuroscience of music (pp. 192-203). Oxford: Oxford University Press.*
Patton, J.E., Stinard, T.A., and Routh, D.K. (1983). Where do children study? TheJournal of Educational Research, 76(5), 280-286.
Richards, J.C., & Rodgers, T.S. (2001). Approaches and methods in language teaching (second ed.). Cambridge University Press.
Rauscher, F.H., Shaw, G.L. , &Kelly, K.N. (1993). Music and spatial task performance. Nature ,365, 611 .
Rauscher, F.H., &Zupan, M. (2000). Classroom keyboard instruction improves kindergarten children's spatial-temporal performance: A field experiment. EarlyChildhood Research Quarterly, 15, 215-228.
Savan, A., (1999). The effect f background music on learning. Psychology of Music, 27(2), 138-146.
Schellenberg, G. (2004). Music lessons enhance IQ. American Psychological Society, 15(8), 511- 514.
Senemoglu, N. (2004). Gelişim Öğrenme ve Öğretim, Kuramdan Uygulamaya (10 ed.). Ankara: Gazi Kitabevi.
Stansell,J.W. (2005). The Use of Music for Learning Languages. University of Illinois at Urbana-Champaign.
Tucker, A., and Bushman, B.J. (1991). Effects of rock and roll music on mathematical, verbal, and reading comprehension performance. Perceptual and Motor Skills, 72, 942.